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In an effort to support Carroll's premise that there might be a relationship between foreign language aptitude and the degree to which the learner is capable of coping with the pace of language instruction, this study describes the comparative effectiveness of predicting student language learning potential through the Pimsleur Aptitude Battery, teacher evaluations, and student self evaluations. A discussion of the project design includes information on details of (1) administering the aptitude battery to 1,587 first year foreign language students in five Tucson public high schools, (2) the development of the language aptitude data for each individual, and (3) the results of the correlational studies. Five tables of statistical data supporting an outline of tentative conclusions precede a brief discussion of final conclusions. Comprising half the report are four appendixes comparing the two teacher evaluations of a student and the student self-evaluation with the aptitude profile and prediction. (AF)

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A COMPARATIVE STUDY OF EVALUATIONS OF LANGUAGE LEARNING POTENTIAL BY APTITUDE BATTERY, TWO TEACHER EVALUATIONS, AND STUDENT SEIF-EVALUATION

John F. Bockman

The Problem

Carroll, Sapon, and Pimsleur, among others, appear to have established the diagnostic and predictive powers of language aptitude batteries such as the MLAT and the Pimsleur Language Aptitude Battery. Carroll maintains that "further research is needed to indicate what relationship there may be between foreign language aptitude and the degree to which the individual is capable of coping with the pace of language instruction."[1]

Pacing is more than careful timing. Assimilation of course content or development of skill must be effectively controlled by perception of instructional objectives in terms of individual learning characteristics. Skill in identifying differentiated language learning characteristics would appear to be fundamental to appropriate pacing practices.

The purpose of this project, therefore, was to determine, if possible, how well both teacher and student recognize the latter's language learning potential from progressive experience, compared with his potential as revealed through language aptitude testing. Aptitude test results, of course,

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[1] John B. Carroll, "Research in Teaching Foreign Languages," Chapter 21 of Handbook of Research on Teaching, edited by N.L. Gage, p. 1089

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were not disclosed to either teacher or student during the experiment.

Some investigation of pacing practices was to be proposed depending on the outcome of this study.

The Project Design

To discover something about the uniqueness of individual language learning characteristics, the Pimsleur Language Aptitude Battery was administered to 1,587 first-year foreign language students in five Tucson Public School high schools in September, 1967. This yielded objective data concerning the aptitude of each individual for learning language through word analysis, structural analysis, sound discrimination, and sound-symbol association. Much useful supplementary data was also collected, e.g., record of bilingualism in the student's formative years, previous language study, and something of the pattern of any previous foreign language study.

The cards punched with these data were sorted from lowest to highest by sound-discrimination score.[2] One hundred cards were selected for this project by pulling about twenty-five cards from the top of the deck, twenty-five from the bottom, and fifty from the middle. A language aptitude profile was drawn for each individual from the four scores

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[2] "According to . . . investigation, there does exist a 'talent' for learning foreign languages--that is, a special factor beyond intelligence and industriousness which accounts for how well an individual succeeds in a language course. . . . this special factor is auditory aptitude . . . ." Paul Pimsleur, Underachievement in Foreign Language Learning, p. 30.

of the battery: vocabulary, language analysis, sound discrimination, and sound-symbol association, following a plan suggested by Pimsleur.[3] From each profile a prediction was made concerning each student's chance of success.

To confirm prediction and to study how the teacher's evaluation compared with that of the battery, the teacher was asked in February, 1968 to rate the student as above-average, average, or below-average in four language areas roughly correlating with the four parts of the aptitude battery. For adjustment purposes, and to facilitate interpretation, the teacher was also asked to rate the student's motivation and perseverance, as well as to specify the student's style of learning as leaning toward analogy or analysis. The questionnaire used was similar in form to the personality appraisal forms that TPS teachers are familiar with, and which permit rating on a sliding scale.

Bilingualism was soon recognized as a complication in the interpretation of teacher evaluations. Performance in the early stages may cloud the issue of aptitude in the study of the native language, which, in this case, was always Spanish. Thus most bilingual students were not carried in the study past the first teacher evaluation. Failure, withdrawal, or lack of teacher or student response reduced to 65 the number of students for whom complete data were

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[3] Albert Valdman, ed., Trends in Language Learning, pp. 176-185.

collected throughout the study. Twenty teachers each submitted two evaluations which were used in the project.

With the assistance of Mrs. Phyllis Forbes, then research assistant in the Research Division of Tucson Public Schools and now teacher of German at Palo Verde High School, a more carefully designed instrument was developed for student self-evaluation in categories of language learning identical with those measured in teacher evaluation and correlated with the parts of the aptitude battery. This instrument was sent to students in May, 1968, and 65 were returned.

One week before the end of school, the teachers involved were asked to submit a second evaluation on a form similar to that used for the first evaluation. In addition, they were asked to verify the student's mono- or bilingualism, and to specify the final grade.

The data collected in the first and second teacher evaluation and in the student self-evaluation were coded into IBM cards together with aptitude test scores and subjected to a number of correlational studies.

Appendix A shows the form for the teacher first evaluation as it has been filled out by the teacher.

Appendix B shows the same form with aptitude profile and prediction. An explanation of the graph is given on the following page, Notes to Appendix B.

Appendix C shows the form for the student self-evaluation as it has been filled out by the same student.

Appendix D shows the form for the teacher second evaluation as it has been filled out by the teacher. All forms are for evaluations of the aptitude of the same student.

Results of the Study

TABLE I *

Correlations between Teacher First Evaluation and Student Self-Evaluation of Specific Skill Potentials

	(r)	(p)
Word Analysis.....	.19	n.s.
Structural Analysis.....	.39	.01
Listening.....	.38	.05
Speaking.....	.51	.01

Tentative conclusion: Table I may suggest that in the early stage of language learning, speaking potential is more unambiguously recognized by student and teacher than are other skill potentials. Teachers, or students, or perhaps both may experience difficulty correctly recognizing most kinds of skill potential.

TABLE II *

Correlations between Student Self-Evaluation and Teacher Second Evaluation of Specific Skill Potentials

	(r)	(p)
Word Analysis.....	.54	.01
Structural Analysis.....	.51	.01
Listening.....	.45	.01
Speaking.....	.44	.01

* N = 65

Tentative conclusions: Table II may suggest that teacher and student evaluation of skill potentials approach one another with more experience, especially those skills measured in writing. Given adequate time, perhaps, teacher and student evaluation of these potentials might coincide. Question: Is this the result of teacher and student mutually discovering potential, or is the student's estimate of himself shaped by the teacher?

TABLE III *

Correlations between Teacher First Evaluation and Teacher Second Evaluation of Specific Skill Potentials

	(r)	(p)
Word Analysis.....	.60	.01
Structural Analysis.....	.76	.01
Listening.....	.74	.01
Speaking.....	.64	.01

Tentative Conclusions: Table III reveals a high degree of consistency between Teacher First and Teacher Second Evaluations. This may point to an early and unchangeably correct perception of the student's potential, or to a freezing of a false estimate of the student's potential, or to both in different teachers. Presumably the student's recognition of his own potential undergoes the greater modification over time.

TABLE IV *

Correlations between Aptitude Test Scores and Final Grades

	(r)	(p)
Verbal Aptitude.....	.57	.01
Auditory Aptitude.....	.37	.05
Total Aptitude.....	.60	.01

* N - 65

Tentative Conclusions: From Table IV it may be concluded that the aptitude battery is a good predicter of academic success in foreign language study, with the verbal aptitude score being far better for this purpose than the auditory aptitude score. How intuition of this seems implicated in teacher evaluation of structural analysis potential may be noted in the following table.

TABLE V N - 65

Correlations between Total Aptitude Scores and Evaluations of Specific Skill Potentials in..

	(Evaluations)					
	..Teacher 1st		Teacher 2nd		Student Self	
	(r)	(p)	(r)	(p)	(r)	(p)
Word Analysis	.28	(n.s.)	.27	(n.s.)	.32	(.05)
Structural Analysis	.57	(.01)	.54	(.01)	.37	(.05)
Listening	.33	(.05)	.30	(.05)	.20	(n.s.)
Speaking	.41	(.01)	.52	(.01)	.43	(.01)

Tentative Conclusions: Correlation between a specific aptitude as revealed by battery and as estimated by the teacher appears to be moderate, with the most significance revealed perhaps in the estimate of analytical potential. It is interesting to note how much less significant the student's estimate would appear to be.

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Final Conclusions

In this study, twenty teachers, representing two-fifths of the foreign language teachers of Tucson Public Schools high schools, submitted their estimate of the potential of sixty-five beginning foreign language students for learning a language through assimilation of vocabulary, analysis of structure, listening comprehension, and speaking. They were given an opportunity to revise this e stimate at the end of the first year.

The students, for their part, contributed an evaluation of their own potential for learning a language by the same categories.

These three evaluations were measured against language aptitude test results to see how well they correlate.

We seem to have learned that students are not very able to judge their language-learning potential correctly, with the possible exception of speaking.

Teachers seem reasonably well able to gauge a student's potential for analyzing language and for speaking, but may not adequately recognize a student's potential for learning language through audition.

The discrepancy between the high potential of TPS students for learning language through audition and the general condition that they must learn by analysis needs further exploration.

January, 1969

APPENDIX A

Dear [redacted]: Re: [redacted]

As you know, in September, 1967 the Pimsleur Language Aptitude Battery was administered to some of your first-year foreign language students.

As a follow-up and check on the results of aptitude testing, we have chosen a number of names by a type of random sampling. We hope to get additional information which may be useful in the interpretation of results.

Comparing the above-named student with all other foreign-language students with whom you have worked, would you please check his rating in each of the following factors:

	Above-Average	Average	Below-Average
1. Knowledge of vocabulary.....		✓	
2. Knowledge of grammatical functions and ability to use them.....		✓	
3. Skill in listening with comprehension.....		✓	
4. Skill in control of the sound system, intonation, fluency of reading aloud....	✓		
5. Motivation.....		✓	

6. Is the student better in oral ✓ or written ____ work?

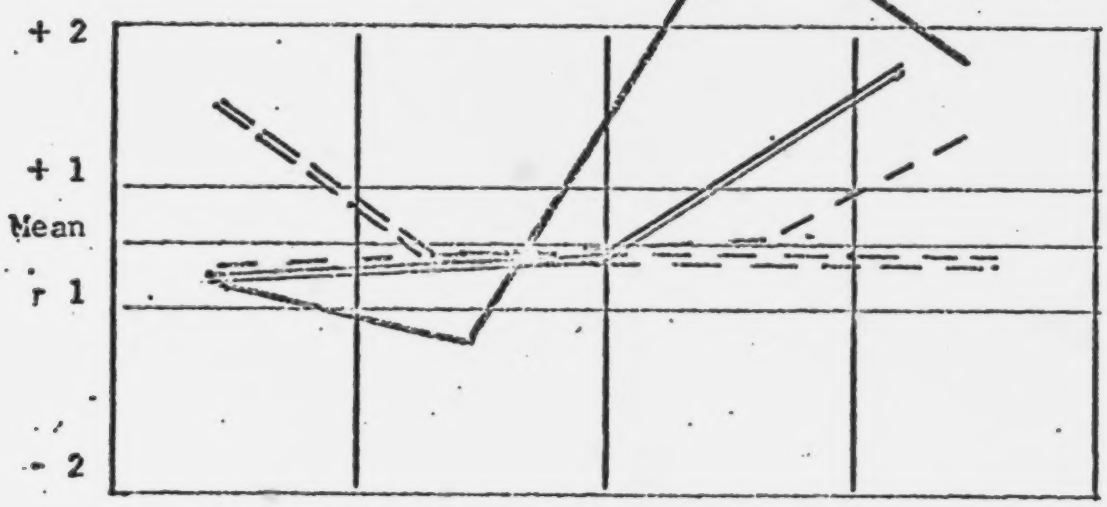
7. Has the quality of his work improved ____ or deteriorated ✓ since the beginning of this school year?

Thank you very kindly. Please return this to me at your earliest opportunity.

Very truly yours,

John F. Bockman
Coordinator of Foreign Language Instruction

APPENDIX B



French

FEB 14 1968

Diagnosis:

Average or below-average student; watch for over-achievement in oral work.

Result: 3

	Above-Average	Average	Below-Average
1. Knowledge of vocabulary.....		✓	
2. Knowledge of grammatical functions and ability to use them.....		✓	
3. Skill in listening with comprehension.....		✓	
4. Skill in control of the sound system, intonation, fluency of reading aloud....	✓		
5. Motivation.....		✓	

6. Is the student better in oral ✓ or written ____ work?

7. Has the quality of his work improved ____ or deteriorated ✓ since the beginning of this school year?

Thank you very kindly. Please return this to me at your earliest opportunity.

Very truly yours,

John F. Bockman
Coordinator of Foreign Language Instruction

Notes to Appendix B

The box in the upper left-hand corner represents the four parts of the language aptitude battery, from left to right: word analysis, structural analysis, sound discrimination, and sound-symbol association. From top to bottom represents placement of the score from two standard deviations above the (national) mean, through the mean, down to two standard deviations below the mean. The student whose language aptitude profile is graphed on the form, scored somewhat below the mean in word analysis, below the first standard deviation below the mean in structural analysis, at almost the third standard deviation above the mean in sound discrimination, and at almost the second standard deviation above the mean in sound-symbol association. The prognosis is that the student will be below average in reading and writing, but could be far above-average in speaking and listening. The solid black line represents the profile as determined by the aptitude battery.

The teacher's first evaluation is superimposed on this scale with the single dotted line. The three fields from top to bottom now indicate above-average, average, and below-average.

The double dotted line represents the student self-evaluation, and the double solid line, the teacher's second evaluation.

Dear Student:

In September the Pimsleur Language Aptitude Battery was given to you and your classmates in your first-year foreign language class. Since then, information gained from the testing has been used to make a deeper study of language learning problems than has ever before been made in Tucson Public Schools.

It will be of great help to us if you will now take the time, without consulting any other person, to read the statements below and mark one column: "Yes," "No," or "Don't Know." for each question. Please check <u>each</u> item.

When you have done this, please seal the form in the envelope and return to your foreign language teacher to be forwarded to this office.

Thank you very much for your cooperation.

John F. Bockman
Coordinator of Foreign
Language Instruction

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In comparison with other students in my first-year foreign language class...

	Yes	No	Don't Know
1. ..learning and remembering vocabulary is very difficult for me. I can't seem to remember words very long.		X	
2. ..Grammar bores me, so I don't bother with it too much.		X	
3. ..I have little or no trouble understanding the spoken language.		X	
4. ..my pronunciation is pretty good. I feel I have mastered the sound system of the foreign language.		X	
5. ..my motivation for mastering this language is low.		X	
6. ..my written work seems to be better than my oral work (speaking and listening.)	X		
7. ..the quality of my work has improved since the beginning of the school year.		X	

In comparison with other students in my first-year foreign language class...

	Yes	No	Don't Know
8. ..I have a great deal of trouble understanding what the teacher is saying when he uses the foreign language.		X	
9. ..there are a few rules of grammar that give me trouble, but I am generally able to use the language properly.	X		
10. ..I stumble over many words that I find hard to pronounce when I read the language out loud.		X	
11. ..my oral work seems to be better than my written work.	X		
12. ..I want very much to master this foreign language.	X		
13. ..I find that I seem to remember vocabulary quickly and easily.	X		
14. ..the quality of my work has stayed the same since the beginning of the year.		X	
15. ..I have a great deal of trouble putting sentences together (either oral or written) so that they are grammatically correct.		X	
16. ..When I have had the opportunity to hear a native speaker speak the language I can generally understand it.	X		
17. ..there are a few sounds which I have not yet mastered, but I don't seem to have too much trouble with pronunciation.	X		
18. ..there are always a few vocabulary words that I can never remember.		X	
19. ..there is little or no difference in the quality of my written and oral work.	X		
20. ..the quality of my work has deteriorated since the beginning of the school year.		X	

In comparison with other students in my first-year foreign language class...

	Yes	No	Don't Know
21. ..I can understand the teacher when he speaks the foreign language 50% of the time or more.	X		
22. ..I have no trouble at all learning the grammar rules and using the language in its correct form.		X	

Now that you have completed the checking of all the above items, please seal the form in the envelope provided and return to your foreign language teacher. This procedure is being followed to facilitate the return of the greatest possible number of forms in the shortest possible time. We believe that you have made a contribution to the improvement of foreign language instruction in our schools by providing us with valuable data concerning your language learning characteristics. Thank you very much.

APPENDIX D

4 1968

Dear _____

As you know, in September, 1967 the Pimsleur Language Aptitude Battery was administered to 1500 first-year foreign language students throughout the district.

As a follow-up and check on the results of aptitude testing, we selected about ten percent of the names by a type of random sampling for additional study. In February you were asked to rate each student in the study in a number of factors that correlate with different kinds of language aptitude. Later, the students were asked to rate themselves.

Although this is the wrong time of the year to be putting extra burdens upon you, it would be extremely valuable to have an end-of-year rating from you to complete this year's study of the individuals selected for study.

Comparing the above-named student with all other foreign-language students with whom you have worked, would you please check his rating at year's end in each of the following factors:

	Above-Average	Average	Below-Average
1. Knowledge of vocabulary.....		✓	
2. Knowledge of grammatical functions and ability to use them.....		✓	
3. Skill in listening with comprehension.....	✓		
4. Skill in control of the sound system, intonation, fluency of reading aloud....	✓		
5. Motivation.....		✓	

6. Is the student better in oral ✓ or written ___ work? Equally good in both ___.

7. Has the quality of the work improved ✓ or deteriorated ___ since the beginning of the year?

8. Does the student come from a home in which this language is used? Yes ___ No ✓

9. Final grade: 1 ___ 2 ___ 3 ✓ 4 ___ 5 ___

Thank you very much. Please return to:

John F. Bockman

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